easy to collect horror stories involving misuse of private information—but the most pervasive abuses are more subtle, more difficult to track down, and often perpetrated by agencies whose intentions are of the best.

No one really knows how expensive it will be to implement the new law, although a Senate staffer says the OMB's estimate of $200 million to $300 million a year is a gross exaggeration, particularly in light of the fact that some savings are bound to be effected by the correction of sloppy information handling practices.

The next generation of congressional privacy legislation is now being designed to fill in the gaps left by the Privacy Act and to develop rules, by subject area, for information systems operated or funded by the federal government.

Most important on this year's agenda is a law to regulate the handling of criminal justice information by the federal government and all state and local law enforcement agencies that get federal funds. The House and Senate judiciary committees now have two bills under consideration, one authored by the Administration and one masterminded by Ervin. There is general agreement that criminal justice files are pretty much in disarray. On the federal level, it is difficult to place restrictions on information management because the Federal Bureau of Investigation (FBI) doesn't want any rules—such as sealing criminal histories or expunging arrest records after a specified period of time—that would cramp pursuit of its mission. The problems are legion. Lack of accuracy and completeness of records is one of the worst. It is estimated, for example, that of the arrest records held by the FBI's National Crime Information Center (a data bank in which states voluntarily participate), 70 percent contain no information on the final disposition of the cases. The spread of automation has allowed for easy and indiscriminate circulation of arrest records (whether or not followed by conviction) and unverified data. What's more, prospective employers, credit agencies, and other non–law enforcement bodies are given access to individual criminal records. The bills pending are designed to limit the use of incomplete records, to keep criminal justice information within the system, and to inhibit direct access of one system into another. And, in keeping with the Privacy Act (into which the final measure is supposed to plug), subjects of criminal files would have the opportunity to inspect and demand correction of their files.

There are quite a few other privacy bills simmering along in various committees governing use of Internal Revenue Service files, government personnel files, medical files, banking and savings and loan files, military surveillance, and so on.

Senator William Proxmire (D–Wis.) intends to introduce amendments to the Fair Credit Reporting Act. That act, passed in 1970, was the government's pioneer effort at giving individuals some control over personal information by requiring that consumer credit agencies tell them what is in their files. The act is now deemed inadequate, and provisions are being drawn up that would enable people to see their files in person, uncover specific reasons why they were rejected for credit, learn the identity of their "accusers," and take legal action on broader grounds than those allowed in the original act.

There is also a bill, introduced by Koch and Goldwater and named, appropriately enough, H.R.1984, that would apply, to data banks held by local governments and the private sector, the same principles that the Privacy Act establishes for those within the federal government. The Administration thinks such a measure would be premature, and many private businesses contend that specific abuses should be identified before the government starts tinkering with their information systems. There certainly would seem to be a need to sharpen up definitions. What, for example, is a personal file? What, for that matter, is a data bank? Some people fear that such a law could even put restrictions on the maintenance of newspaper morgues or company correspondence files. Anyway, H.R.1984's chance of passage, at least in its present form, is extremely remote.

It may be that the states will take the responsibility for laws governing privacy in the private sector. Several states, including Massachusetts, California, and Hawaii, are developing laws governing their own data systems; farthest along is Minnesota, which now has a law governing data banks containing personal information held by all states and state-funded agencies. Some private organizations are moving ahead on their own—IBM, for example, has developed new measures to limit the scope of information required for employee files, and is advertising principles it has adopted to give employees access to their own records and limit access by third parties. If the trend continues, privacy practices could become formally embodied in the structures of large organizations in the way equal employment opportunity functions have been.

A new family of privacy legislation will mean a new family of trade-offs. The most fundamental question relates to the amount of information the government needs on individuals in order to protect the well-being of society. If future laws put limits on the amount, type, retention, and use of information collected from individuals, there will inevitably be new impediments to efficient rendering of government services, law enforcement, and the availability of data for statistical and research purposes. Balanced against these drawbacks will be not only the indefinable "right to privacy" but also the feeling of freedom and security that enables citizens to exercise their constitutional rights without looking over their shoulders all the time.—CONSTANCE HOLDEN

NIH: Reunion Held to Boost Morale and Gain Political Visibility

On Monday, 21 April, the nominations of Theodore Cooper to be assistant secretary for health in the Department of Health, Education, and Welfare (HEW) and Donald S. Fredrickson to be director of the National Institutes of Health (NIH) finally became official when President Ford sent their names to the Senate for confirmation. Within 2 weeks, routine confirmation hearings were held and now, after several months of waiting, it looks as though the biomedical community will have leaders in Washington.

Washington has been the scene of an unusual amount of activity involving the biomedical world lately. On the weekend preceding the formal Cooper-Fredrickson nominations, NIH held a party, a reunion that lured more than 700 nostalgic alumni to its campus just outside of the Capital. The following weekend, NIH held an open house for the public, an estimated 25,000 to 30,000 of whom showed up to tour laboratories and watch science movies. On

Capitol Hill, the House held hearings on NIH, drawing its witnesses from researchers in town for the reunion, which had been almost a year in the planning (*Science*, 31 May 1974).

The purpose of the reunion, which was the brainchild of Sydney Udenfriend, a former NIHer who is now director of the Roche Institute of Molecular Biology in Nutley, New Jersey, was to boost the sagging morale of institute scientists and lobby for greater support of their research. Udenfriend called the reunion an event to "emphasize to our national leaders and the American public the important role this great institute has had in advancing the frontiers of knowledge, and in training scientists throughout the world." There has been a lot of talk lately about NIH being on the decline.

Friday evening was given over to private parties in the homes of scientists who are now working at NIH (reunion organizers tried to make sure that each returning alumnus was invited to at least one party).

Saturday morning was devoted to speech-making. The center of activity was a gigantic yellow- and red-striped tent, replete with spindly gold-colored chandeliers, that had been erected on the NIH campus. Nobel Laureate Arthur Kornberg opened the convocation with an address tracing the history and the glory of NIH while also issuing warnings about its future. "Despite its superb record and its dedication to science and conquest of human disease, NIH is being subjected to severe criticism. Unfortunately, NIH has grown to a size that makes it vulnerable, although much of this growth was put upon it by public health programs that were imposed," Kornberg declared, to the satisfaction of many scientists who resent the fact that money is being spent on such things as patient-oriented "cancer control" programs, at what they perceive to be the expense of so-called fundamental research.

Health, Education, and Welfare Secretary Caspar W. Weinberger, drafted to appear as a spokesman for the government after President Ford and Vice President Rockefeller declined invitations to attend, replied to Kornberg's now familiar plea for more support with an equally familiar assurance that research is alive and well as far as the federal bureaucracy is concerned. "We are committed to maintaining the vitality of NIH—both as a scientific research institution of renown and as a supporting arm for the biomedical research community at large," he stated. "It is not true that we are de-emphasizing research."

Passing from that unresolvable debate to a more immediate matter, Weinberger pleased his audience by telling them indirectly, but without much subtlety, what they wanted to hear about the nominations of Cooper and Fredrickson. Weinberger said he had it on good authority that the

Schmidt Talks About What Is Good and Not So Good

From its inception in 1971, the National Cancer Program has been accused of draining funds from other areas of research and of putting a straightjacket on cancer research itself in the form of too much "targeting." Nobel Laureate James Watson, a former member of the National Cancer Advisory Board, has been particularly outspoken in his criticism. In an address on 10 April at the Duke University Medical Center, Benno C. Schmidt, recently appointed to a second 3-year term as chairman of the President's Cancer Panel, replied to some of the critics. Schmidt, a financier who is managing partner of J. H. Whitney and Co., a venture capital investment firm in New York, is also a member of the President's Biomedical Research Panel, which is studying federal support of all aspects of biomedical research.—B.J.C.

These are very interesting days for those of us responsible for the National Cancer Program. The criticisms are coming in from all quarters and they need careful listening to, and even more careful sorting out.

* * *

While the other Institutes of the National Institutes of Health have not had [budget] increases comparable to cancer, the total NIH budget for biomedical research is $2,090,000,000 in 1975 compared with $1,143,000,000 in 1970. Notwithstanding [this fact], we find that the National Cancer Program and the NIH programs generally are facing greater criticism today than ever before in history.

Underlying this criticism is a perception in the scientific community which is picked up in the press that these funds that are being provided by the Congress are not being well spent.

* * *

First, with respect to basic research, the actual expenditures of grant funds for good basic science programs subjected to peer-review and given high ratings have actually increased remarkably during the past three years. I do not think either the public or the scientific community has any perception of the amount of good basic biomedical research that is being funded under the Cancer Program (over $300 million last year). Moreover, most of this is investigator-initiated, peer-reviewed and grant-supported and meets all the criteria of the scientific community for assuring excellence. . . . And the fact is that the federal government is funding more excellent basic research today than at any time in the past. Much more in the Cancer Institute, and we are making some progress in the other Institutes. For example, the budget for General Medical Sciences is $187 million in 1975 compared with $164 million in 1970. I realize that this increase does not even cover inflation, but it is better than it would have been without our help and we are fighting hard to get these budgets increased.

As for targeting, I wish that I could make clear once and for all the fact that those who manage the national cancer effort are not obsessed with the idea of targeting. There is some research that can and should be targeted and in those cases, with the advice of the best scientists available, a targeted effort is made. However, we are as aware as anyone anywhere of the limitations of targeted research. . . .

* * *

This brings me to the National Cancer Plan which has been the subject of so much criticism from so many scientists. When Dr. James Watson was reported recently as having said at MIT* that the National Cancer Program was a "sham," he was, in fact, talking about the National Cancer Plan. He made this somewhat clearer in a letter of apology than he did in his speech, but there is no question that he was talking about the Plan and not the Program. I suspect that if we took a vote, most scientists would be happier if there were no Cancer

*Watson, a professor at Harvard University and director of the Cold Spring Laboratory, spoke at a symposium in March marking the opening of a cancer center at the Massachusetts Institute of Technology.

White House would make the nominations official on the following Monday, as it did.

That Monday was also the day on which a dozen staunch defenders of NIH were scheduled to tell Representative Paul G. Rogers (D–Fla.) and the members of the House Subcommittee on Health and the Environment, which he chairs, why NIH needs their support. The Rogers hearings, which lasted only half a day, are a prelude to more extensive NIH oversight hearings in the House.

"Over the past several years, members of the Congress who deal legislatively with biomedical research have become increasingly concerned with the direction, stability and the quality of work at the National Institutes of Health," Rogers said in a letter to the 12 statesmen* of the establishment. "Things do not appear to be changing. . . ."

The testimony he and his committee heard, focused as it was on a litany of past achievements as justification for continuing along the same, though more expensive, path in the future, did not give one a sense of confidence that change would be bred from within.

At a luncheon following the hearing, however, conversation was directed more toward the future. The real interest of the subcommittee in the issues of biomedical research was indicated by the fact that many subcommittee members, not just the chairman, took the time to attend and to talk with the scientists individually. Among the topics under discussion was the politicization of NIH that had occurred as the result of legislation, which Rogers and others endorsed, that made the director a presidential appointee. Suggestions were made on this occasion, as they have been before, to reverse that politicizing bill, or at least to diminish its effect by giving the director a fixed term of office that would span presidential terms. It seems to be an idea whose time is about to come. (Fredrickson has said that he would not have considered taking the job had he not reason to believe that his tenure would last more than the 18 months between now and the next election.) Any steps by Congress to isolate NIH from the vagaries of national partisan politics would be welcomed by the biomedical community.

—BARBARA J. CULLITON

*Robert Berliner, Yale University Medical School
Eugene Braunwald, Peter Bent Brigham Hospital
Thomas Chalmers, Mount Sinai School of Medicine
John R. Hogness, University of Washington
Kurt Isselbacher, American Gastroenterological Association
Arthur Kornberg, Stanford University School of Medicine
John H. Laragh, New York Hospital, Cornell Medical Center
Irving M. London, Massachusetts Institute of Technology
G. Burroughs Mider, American Society for Experimental Pathology
James A. Shannon, Rockefeller University
Lewis B. Thomas, Memorial Sloan-Kettering Cancer Center
Sidney Udenfriend, Roche Institute of Molecular Biology

About Federal Support of Biomedical Research

Plan—if there had never been a Plan. . . . [But] the Plan is not designed for the purpose of telling us how to run the Program. The Plan was an attempt by the scientific community, by those responsible for doing the science, to indicate those areas which, at the present time, seem to offer the greatest promise. Like most plans, its principal value may well be in the communications which take place during the planning process. . . .

The Program is designed to provide an open system with fair and even peer-review and an environment optimal for discovery. We need brilliance, hard work, serendipity, and a large measure of good luck. I hope we are doing nothing to block ourselves off from any of these.

* * *

Another frequently heard charge, and one also recently repeated by Dr. Watson at MIT, is that our Centers' support represents the support of inferior research and thus deprives institutions of greater excellence of that support. This allegation does not withstand examination. In supporting the 17 comprehensive centers that have thus far been recognized, we are not only helping to bring better clinical care to a greater number of our citizens, but we are also supporting some of the best research institutions that exist in this country . . . including, ironically, Cold Spring Harbor Laboratory, where Dr. Watson's support has gone from $435,000 in 1970 to $1,685,000 in 1974 under the NCI Centers' Program which he condemns. So I say to Dr. Watson and those like him who question the excellence of the research supported under the Centers' Program that peer-review is alive and well in the Centers' Program just as it is in other programs of the National Cancer Institute. Perhaps we should change our terminology to avoid confusion, but there is nothing substandard about the substance of the Centers' Program.

* * *

The most serious mistake we have made in support of our biomedical research during the short period that I have been actively associated with this enterprise was the discontinuance by OMB [Office of Management and Budget] of the biomedical fellowship and training programs. It is absolutely essential to our success in the Cancer Program and in biomedical research generally that we bring a portion of our brightest young people into these programs, and fellowships and training grants have proved to be the most effective and most economical ways of doing that. These are among the best dollars we spend in terms of value received.

Most of the arguments which have been made for discontinuing the training grant and fellowship programs do not stand up under examination. . . .

The worst aspect of the training picture during the past few years has been the on again–off again uncertainty that comes with defining new programs, producing new regulations, not having funds in certain periods, having funds in other periods, and putting the whole research establishment in the hurry-up-and-wait, now-you-have-it-now-you-don't posture. However, we are supporting training substantially, and I hope we are in the process of getting a uniform understanding and a uniform program that can go on year after year without the turbulence that has characterized the past several years.

* * *

. . . [A] few words about the biomedical research budget, because there is no question that the combined problems of inflation and recession and the economic difficulties which confront us have created great pressure for the reduction of federal expenditures on biomedical research. This is one of the few areas that can be reduced and therefore it is a prime target.

If any well-run business were spending $100 billion per year on medical care, it would be spending at least 5 percent of that amount on research to reduce those costs. While we cannot go to that level under today's circumstances, sound business judgment requires that we not cut back on the present effort.